

## ABSTRACT

Models are generated using a variety of tools and features of a model generation platform. For example, in connection with a project in which a user generates a predictive model based on historical data about a system being modeled, the user is provided through a graphical user interface a structured sequence of model generation activities to be followed, the sequence including dimension reduction, model generation, model process validation, and model re-generation.

Historical multi-dimensional data is received representing multiple variables to be used as an input to a predictive model of a commercial system variables are pruned for which the data is sparse or missing, and the population of variables is adjusted to represent main effects exhibited by the data and interaction and non-linear effects exhibited by the data.